

REMARKS

Claims 1 and 6 are amended. Thus, by this Amendment, Claims 1, 3, 4, 6, 10 through 12 and 14, as amended, are presented for examination.

The Examiner has again rejected Claims 1, 3, 4 and 6 as allegedly anticipated by the United States patent of Clark et al. Claims 10 and 11 are again rejected as allegedly rendered obvious by Clark et al. while Claims 12 and 14 are again objected to for dependence upon a rejected base claim but are indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In the pending rejection of claims, the Examiner refers to an alleged discrepancy between the arguments raised by the Applicants in response to a prior office action. Such alleged discrepancy resides in the alleged failure to the claim language to clarify the nature (electromotive or electrostatic) of the "constant force" that causes a change in the alignment of the first spring elements and/or a change in the alignment of the second spring elements as the Examiner alleges the relevant portions of Clark et al. teach a varying electrostatic force and a constant electromotive force. The two independent claims of the pending application, Claims 1 and 6, are amended herein to

specify that the constant force is electrostatic.

The generation of a constant electrostatic force is described and/or implied throughout the application to correct for quadrature bias resulting, for example, from misalignment of the spring elements  $5_1$ ,  $5_2$ ,  $5_3$ ,  $5_4$ ,  $6_1$ ,  $6_2$  on which the oscillators 3, 4 are suspended (See Figure 1 of the application). This is the essence of the claimed invention and differs from the cited reference in which the problem of quadrature bias is addressed by quadrature nulling as described at column 8, lines 2 through 25 of Clark et al. The Examiner has alleged that the specification does not make clear the nature of the constant force referred to in Applicant's claims due to the absence of the term "constant" from the specification. That such signal is electrostatic in nature can be seen, for example, at page 20, lines 17 through 23 ("The electrostatic field produced by the second excitation electrodes  $10_1$  and  $10_4$  (or the two electrostatic fields produced by the electrode pairs  $10_1$ ,  $10_3$  and  $10_2$ ,  $10_4$ ) results in an alignment/position change of the second oscillator 4 in the X2 direction, and thus in a change in the alignments of the second spring elements  $6_1$  to  $6_2$ ." ) Accordingly the amendments made to the claims are supported within the body of the specification.


Claim 1 and the claims that depend therefrom, directed to a method for quadrature-bias compensation in a Coriolis gyro whose resonator is in the form of a coupled system comprising a first and a second linear oscillator in which the first oscillator is attached to a gyro frame of the Coriolis gyro by means of first spring elements and the second oscillator is attached to the first oscillator by means of second spring elements, is amended herein to include, among other limitations, "production of an electrostatic field in order to vary the mutual alignment of the two oscillators with respect to one another, with the electrostatic field producing a constant electrostatic force which causes a change in the alignment of the first spring elements and/or a change in the alignment of the second spring elements, and with the alignment/strength of the electrostatic field being regulated such that the determined quadrature bias is as small as possible." (Emphasis added.) By limiting the method claims to a "constant electrostatic force", the claimed invention is now patentably distinguished from the cited art.

Claim 6 and the claims that depend therefrom, directed to a Coriolis gyro having a first resonator which is in the form of a coupled system comprising a first and a second linear oscillator, with the first oscillator being attached to a gyro frame of the Coriolis gyro by means of first spring elements, and

the second oscillator being attached to the first oscillator by means of second spring elements, are now amended to include, among other limitations, "a device for production of an electrostatic field by means of which the alignment of the two oscillators with respect to one another can be varied, in which the electrostatic field produces a constant electrostatic force which varies the alignment angle of the first spring elements with respect to the gyro frame and/or the alignment of the angle of the second spring elements with respect to the first oscillator." (Emphasis added.) By limiting the apparatus claims to a "constant electrostatic force", the claimed invention is now patentably distinguished from the cited art.

For the foregoing reasons, all presently-pending claims define patentable subject matter. Prompt allowance and issuance of all pending claims are therefore earnestly solicited.

Respectfully submitted,

  
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